

Education Section

Both I. T. Bode and Sydney Stephens realized that to develop a sound wildlife and forestry program, education is vital. To them education was two-fold: adult citizens had to be reached at once, so they would understand and support programs being undertaken, and a formal program of reaching Missouri youth was necessary for the long haul.

The Commission believed from the first that Missourians, and especially young people, should know how to be good stewards of their wildlife resources. They believed that restoration of wildlife and forests would come about

by people educated to the value of those resources in their lives.

Educating adults means informing them, and that was in Townsend Godsey's and the Information Section's realm. But efforts like the Showboat, used in Forestry, and emphasis on personal appearances before groups by field men augmented the information program.

The first formal youth education program of the Conservation Commission originated with Godsey, also. When he had worked for the Fish and Game Department in 1932 he



In October, 1939, Sturgeon area schoolchildren were awarded prizes for essays entitled, How I Can Improve Our Farm for Quail. The essay contest preceded efforts like the Nature Knights as an early attempt at conservation education.



Photographed in 1940 at Pine Grove School in Texas County, these young conservationists were among the first groups of Nature Knights in the state.

had devised an education program but was unable to implement it. When he returned to head the Information and Education Division he offered the plan to the Commission and put it into effect in the spring of 1939.

Called Missouri Nature Knights, it was a system of activities and awards through which boys and girls between the ages of six and sixteen could earn recognition for various conservation practices. The program provided activities based on three principles of learning-motivation, thinking and action. Youngsters were enrolled as Pages and earned points for activities that helped restore wildlife habitat, at the same time learning fundamentals of resource conservation. They progressed through Squire, Knight and Conservationist steps to earn awards in the form of certificates, badges and medallions.

Walt Disney, who grew up in Marceline, designed the certificates for the program,

which were instant hits with the youngsters.

The idea won acceptance from leaders of various youth groups, as indicated by the large numbers of schools, 4-H clubs, Future Farmers of America, Scouts and Campfire Girls who participated in Nature Knights. The state Department of Education recognized the Nature Knights Club as meeting club requirements for approval in a first-class school.

In the first biennium, Nature Knights conducted 5,727 farm surveys for wildlife, created 520 bird havens in school yards and 763 on farms, planted 1,047 wildlife food patches, planted 23,839 trees, built and hung 7,266 birdhouses, made and displayed 31,391 wildlife and forestry posters, built 569 school exhibits, and gave 3,920 talks on the subjects of What is conservation? and Why conservation rules?

The Nature Knights program continued until 1959, when it was finally discontinued.



School consolidations and greater participation by rural youngsters in other activities showed that the program had served its purpose. For twenty years youngsters all over Missouri had enjoyed earning awards while learning about their wildlife and forestry resources. Even today, a number of adult Missouri citizens proudly display their Nature Knight pins and look back fondly on their association with the program.

Some of their efforts on behalf of wildlife and forests remain as evidence of the things

The Nature Knights program was structured to let youngsters progress from pages to squires and knights as they achieved conservation goals. A group of Nature Knights plants seedlings on a lakeshore, below and L. N. "Pop" Elson points out features of a stream on a Nature Knights outing, left.



young people can accomplish with the right motivation. The influence of exposure to conservation concepts is difficult to measure, but the strides that have been made in conservation over the past fifty years attest to Missouri citizens' awareness and concern about resources-in many cases as a result of participation in the Nature Knights program in their youth.

There was considerable debate among educators in the early years as to how conservation education might best fit into the schools. There was a difference of opinion whether it should be introduced as a separate subject or course, as something to be integrated into other subjects, or as an extra-curricular activity. The Commission welcomed the opinions of educators and was struck by a statement of F. Olin Capps, then of the Missouri University Laboratory School:

Education as a vital factor in the conservation movement has received very little attention in the past. Most emphasis has been placed upon the importance of legislation, but the destruction and waste of natural wealth has continued at an alarming rate in spite of all the laws which have been enacted for its protection.

Today there is an increasing recognition of the needs of an educational program to support the laws which are necessary, and to develop an attitude, not merely of preservation, but of wise use and habitat restoration. When this attitude has been attained by the majority of our citizens, the Department's programs will begin to function more effectively.

It is fundamental that all teaching materials be based upon scientifically accurate facts and principles of conservation. This information, as yet, has not been organized and made available so it can be used to the best advantage by those who are responsible for presenting it to the boys and girls of our schools.

Such an extensive program would require much more than can be accomplished in a special course. It demands that most of the teaching be done through integration with existing subjects. This will necessitate a care-

ful preparation of teaching materials if needless duplication is avoided and pupils receive the benefit of instruction.

Dr. Capps and Everett F. Evans, in cooperation with the state Department of Education and University of Missouri, began work on seven teachers' manuals covering the subjects of soils, water, forests, birds, mammals and fish, plus an introductory manual. They were designed to furnish basic information and principles as well as to suggest effective conservation education activities. The manuals were completed and ready for distribution when the Commission created a separate Education Section in July, 1941, hiring Capps as its head, with Evans as assistant.

The new section's aims and policies were voiced by Capps:

The hope of wildlife conservation lies in the three-way cooperation of the Department, the landowner and the public, based upon adequate education and mutual understanding. The fundamental aim is that every individual in the state be given an opportunity to learn of Missouri's natural resources and to know what can and should be done by them in making possible the wise use and restoration of those resources.

To accomplish this the Education Section based its program on these points: teacher-training institutions must insure that all teachers have an adequate background in the fundamental facts and principles of conservation; readable, factual material must be prepared for teachers; instructional aids must be developed, and informational materials designed for youngsters at all grade and reading levels must be prepared. The teachers' manuals were a first step, and other educational materials followed.

Conservation education advisors were added to the staff-there are now fourteen of them-and assigned to different regions of the state. Their jobs were to work with school systems and teachers, teacher training institutions and other youth leaders. They conducted teacher workshops and assisted in integrating conservation education into various school curricula. During the summer they worked with youth camps.

¹ Now called "conservation education consultants.

In 1952, James F. Keefe wrote a series of conservation stories for his daughter that the Department took over and published as readers for use in schools. They were graded to various reading levels: *Meet My Neighbors* for grades one and two, *The Little Stream* for grades three and four, *Buteo's Forest*, five and six, and *Citizens of the Soil*, seven and eight. These were provided free to classroom teachers and continue to be used in Department education programs.

Education Section was a separate entity until 1948, when Information and Education were combined into a single division, with Dr. Capps as its head and Dorris Frazier as chief of Education. In 1951, Gordon H. Smith replaced Capps as Division chief, and Capps again headed the Education Section. In 1955, Kenneth R. Hicks became the Division chief, but three years later the Division was again split, with Education assigned to the newly created Field Division. This was an uneasy marriage of Protection, Field Service and



Dorris W. Frazier introduces a young friend to the marvels of a speckled kingsnake. Frazier worked in conservation education programs from 1942-1968.



Teaching conservation principles by teaching teachers has helped spread the conservation message. Here A. R. Mottesheard and a group of schoolteachers take soil samples at a 1951 workshop in Liberty.

Education; Education simply did not fit in such a group, administratively or philosophically. In 1977, the Education Section was taken out of Field Division and has been a separate entity under the supervision of an assistant director since.

Dr. F. Olin Capps resigned in 1961 to accept a position with the U.S. Fish and Wildlife Service, and Clarence E. Billings, who had been an educational advisor since 1947, replaced him as chief of the Education Section.

Under Billings the Education Section continued teacher/leader training, but in 1976, branched out to include mobile conservation workshops and pushed for development of outdoor classrooms at schools. Teachers statewide can participate in mobile workshops, touring different environments to learn of resource use and conservation. There are two separate mobile classrooms each year now, utilizing buses and vans, one in north Missouri and the other south. College credit is offered participants. Week-long conservation camps for teachers have been conducted for a number of years, in addition to the mobile workshops.

Where schools had small parcels of land available, education advisors help schools develop them as outdoor classrooms. Youngsters use them to learn about the natural world through observation and activities on the land. Many Missouri schools now use these outdoor laboratories in their teaching efforts.

With passage of the conservation sales tax and transfer of Education from the Field Division, the section was reorganized with separate units on conservation education and outdoor skills.² A broadened environmental education program, called K-8, was launched with new teacher manuals and more materials for classroom use by youngsters. Clarence Billings retired at the end of 1982, and Donald K. Heard took over as conservation education superintendent.

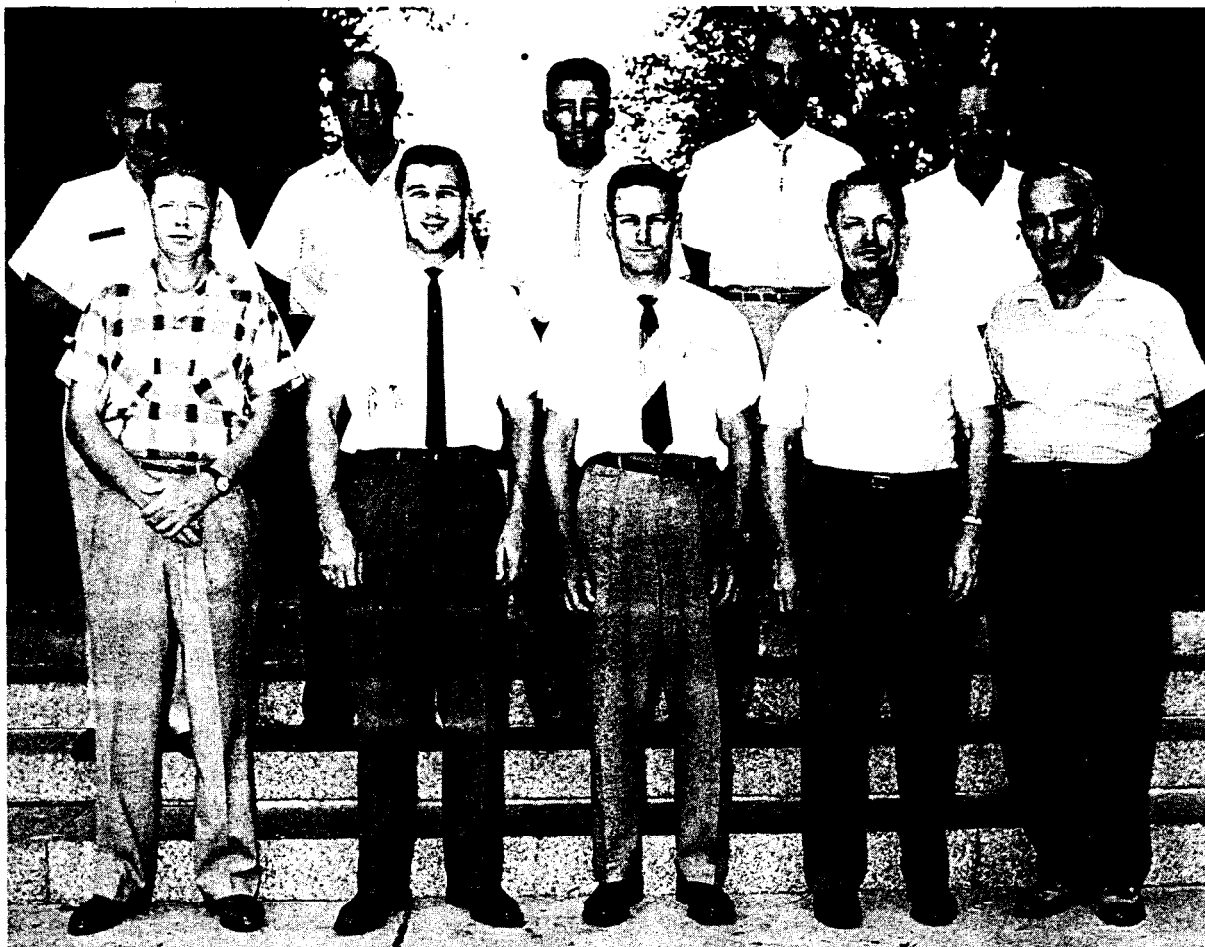
Heard had been a conservation education advisor from 1963 to 1967. He resigned to further his education, taking his doctoral



Conservation education consultants show teachers how to integrate conservation into regular curricula. Virgil Davis, above, visits a Texas County classroom in 1955. Neil Jenkins, below, leads a workshop at Tea Lake in Franklin County in 1968.



² The conservation education unit was headed by Gary D. Harvey (1978-1980), Donald K. Heard (1980-1983) and Al Palladino since that time. F. E. Eyman has headed the outdoor skills unit since 1977.



A fall conference brought the Education staff to Columbia in 1960. They are, front row, left to right: Wayne Adams, Basil Morlan, James P. Jackson, Clarence Billings, F. Olin Capps. Back row: Dorris Frazier, Jack Reed, Neil Jenkins, Virgil Davis and A. R. Mottesheard. Wilma Ketchum, an education advisor, was not present for the photo.

degree in 1980. Heard felt the K-8 program did not reflect modern educational concepts and organization; he created an entirely new set of programs for the Conservation Education Unit when Al Palladino was promoted to assistant superintendent of that unit. Under Palladino's supervision the conservation education programs were expanded and improved to better fit current Missouri education systems and curricula. The first phase was aimed at educating preschool youngsters and was called Conservation Seeds. Materials and activities to interest that age group were developed and distributed to adult leaders and kindergarten teachers.

Recognizing children's attraction to animals, Palladino took a cartoon deer mouse developed by artist James L. Keller, named it Otis, and had materials prepared for elementary school children in grades 1-6 called Learning with Otis. The material includes a variety of educational approaches and a quarterly newspaper that youngsters receive and are urged to share with their parents. A more advanced Conservation Education Series was created and provided to teachers for secondary school youngsters.

Presently there are some 5,500 teachers and 82,500 pre-schoolers enrolled in the Seeds program from both public and paro-

chial schools. There are 17,000 teachers and one-half million youngsters using the Otis program. Some 24,000 teachers and 1.2 million youngsters use the Conservation Education Series.

Special education programs were developed for handicapped and learning disabled students, so that they too might benefit from the outdoors. Beyond the classroom,

Missouri Conservation Frontiers was created for youths and adults, modeled somewhat on the old Nature Knights program. About 450 adults and 6,500 children are enrolled in

Frontiers. In cooperation with the state Division of Vocational and Adult Education a

Vocational Agriculture Conservation Curriculum was developed and implemented.

In addition, working with the Department of Social Services, a conservation camp for underprivileged children was established. The Department's outdoor classroom program was expanded and in conjunction with the University of Missouri, a conservation honors program was set up to provide scholarships and leadership training for high school juniors exhibiting both academic achievement and an interest in conservation as a career.

Another aspect of the Department's education effort was hunter safety training, begun in 1958. It was assigned to the Protection



Otis, the Conservation Mouse, visits workers assembling "Learning with Otis" packets. In 1987, over 17,000 teachers used the material to present conservation principles to grade school students.



Agent Supervisor Dillard M. Branson, left, began the Department's hunter safety program in 1958. In 1964, Branson received a plaque from the National Rifle Association, presented by Gov. John M. Dalton, right, as Director Towell looks on.

Division under Supervisor Dillard M. Branson and was principally conducted by conservation agents, based on programs developed by the National Rifle Association. The four-hour course was offered to adult volunteers, who were certified as instructors upon successful completion of the course. The aim was to create a corps of instructors outside the Department who could instruct others in safe firearms handling, thus reducing hunting related accidents. Conservation agents, education advisors and other Department personnel did a lot of the basic training, in addition to work of volunteer instructors.

The Department developed its own training manual in 1969. In 1973, the Department was recognized internationally for providing the best hunter safety training program in North America. Conservation Agent F.E. "Bud" Eyman was placed in charge of the program that had trained many thousands of Missouri youth and adults in firearms safety; he broadened the program to include more than safety. Wildlife life history, hunter/landowner relationships and the ethical use of the outdoors helped expand hunters perceptions of their sport.

When the Education Section was taken out of Field Division in 1977, the hunter education effort came with it. A new unit called

Outdoor Skills Education, headed by Eyman, developed programs of training in all aspects of outdoor use. Developing in the schools at this time was the concept of life sports - activities that citizens could pursue during their entire lives, such as hunting, fishing, hiking, camping, boating, outdoor photography, bird watching, archery and orienteering. The new Outdoor Skills Unit developed modules for use by physical education, social studies, elementary teachers and other youth leaders to teach these sports. The unit presently uses eleven outdoor skills specialists distributed over the state to train educators and help develop programs. They have developed Department ranges for archery, rifle, pistol, shotgun and black powder shooting and helped others set up ranges. They conduct urban fishing clinics, hunting and fishing seminars, and have created programs for handicapped citizens to participate in outdoor sports. The education effort has come a long way from merely training hunters in firearms safety.



Conservation education consultants bring the outdoors and its skills to youngsters with disabilities. In this 1985 photo, a boy learns to shoot a shotgun with the help of Wayne Martin.



Outdoor skills instructors teach a broad range of life sports and concepts, from outdoor ethics to orienteering.

From the first, the Education Section has worked closely with the state Department of Elementary and Secondary Education, which generally defers to the Department on conservation matters. Gaining credibility and the support of that department made the Conservation Department's program acceptable to the school systems. No other state conservation agency has education programs as encompassing as Missouri's. The Commission has given excellent financial support—an annual average of about two percent of its expenditures—to the formal Education Section efforts, making possible both continuity and longevity of efforts. The Education Section has insisted that its staff come from the ranks of teachers so they are familiar with teacher needs, school organization and curricula. Regional conservation education consultants quickly became known and relied upon by teachers and administrators. The support of education efforts by other arms of the Department have contributed to the program's success.

Education isn't resting on its laurels, however. It is involved in research on how best to meet the needs of teachers and students. It also is researching changing public attitudes toward conservation and resource use, so its educational efforts are kept current.

Today, all state-supported colleges and universities offer courses for teachers in natural resources and related fields. Life skills are part of physical education departments, and several colleges offer a major course in conservation education. The Department extends assistance to all these. Capps announced aim in 1941, that every individual be given the opportunity to learn of Missouri's natural resources and to know what can and should be done by them in making possible the wise use and restoration of those resources has been realized. Tomorrow's adults will be wiser than their parents in protecting and maintaining the natural world of Missouri.